Texas Water Development Board

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TO: Board Members

THROUGH: Jeff Walker, Executive Administrator
Robert E. Mace, Ph.D., P.G., Deputy Executive Administrator, Water Science and Conservation
Todd Chenoweth, Interim General Counsel
Rebecca Trevino, Chief Financial Officer

FROM: Mark Wentzel, Ph.D., Manager, Instream Flows

DATE: November 3, 2016

SUBJECT: Model calibration to improve flood forecasting in Texas

ACTION REQUESTED

Consider authorizing the Executive Administrator to negotiate and execute a contract in a total amount not to exceed $200,000 from the Disaster Contingency Fund No. 453 to calibrate computer models to improve National Weather Service flood forecasting in Texas.

BACKGROUND

In order to better prepare for flooding disasters, the Office of the Governor and the Texas Water Development Board (TWDB) executed a memorandum of understanding in December 2015. Included in that document were provisions for the administration of emergency funding to enhance existing flood notification systems.

The National Weather Service West Gulf River Forecast Center provides hydrologic forecast services, including flood warnings and notifications, for the state of Texas via their Advanced Hydrologic Prediction Service. This service relies on hydrologic models in order to provide accurate forecasts. After initial model calibration projects were completed in the last decade, additional forecast locations have been added to meet the requests of local stakeholders. Although the National Weather Service provides information related to these locations, the accuracy of flood forecasting and warning for these added locations can be improved through model calibration and parameter assessment. The National Weather Service does not have the resources to carry out this additional work. Therefore, the TWDB seeks to enter into a contract with a qualified party to conduct model calibrations to improve the hydrologic models for specific locations within the state. Locations will be selected from a prioritized list of locations, as provided by the National Weather Service, which require model calibration. This project will require careful coordination between the contractor, the

National Weather Service, and the TWDB. The total amount of funding for this activity will not exceed $200,000, and the study will be completed by August 31, 2017.

KEY ISSUES

After consultation with the National Weather Service, TWDB published a request for qualifications (No. 580-16-RFQ0021) along with project-specific selection criteria in September 2016. TWDB staff completed evaluating and scoring the two responses based on demonstrated competence, knowledge, and qualifications. The top ranked candidate was Riverside Technology, Inc. The final ranking of the two responses, as determined by staff, is shown in Table 1.

Table 1. Rank order based on staff evaluations of applications received for the request for qualifications No. 580-16-RFQ0021.

Applications
1. Riverside Technology, Inc.
2. Lynker Technologies, LLC

The Executive Administrator recommends negotiating and executing a contract with the highest ranked applicant. If during contract negotiations with the highest ranked applicant it is determined that the contract cannot be executed, then contract negotiations will be extended to the second highest ranked applicant.

RECOMMENDATION

The Executive Administrator recommends approval to negotiate and execute a contract in a total amount not to exceed $200,000 from the Disaster Contingency Fund No. 453 to calibrate computer models to improve National Weather Service flood forecasting in Texas.